

IGNEOUS PETROLOGY OF SOME PLUTONS IN THE
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Appendix B

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Introduction

The purpose of this appendix is to familiarize the 1974 NEIGC participants with available radiometric age data for granitic rocks to supplement the report by Wones (this Guidebook). The locations with names of granites for which age data are available elsewhere in this Guidebook. As work is currently being carried out on these granites, many of the data are preliminary. The data in Table 1 are so marked to indicate which data are considered highly reliable, etc. Mineral K-Ar and Rb-Sr age data are reported separately from whole rock Rb-Sr data as discrepancies between mineral and whole rock dates are not uncommon.

Constants used for the age calculations are as follows: ^{40}K : $\lambda_e = 0.585 \times 10^{-10}/\text{y}$, $\lambda_B = 4.72 \times 10^{-10}/\text{y}$. ^{87}Rb : $\lambda_B = 1.39 \times 10^{-11}/\text{y}$. Standard methods were used for the Rb-Sr chemistry and mass spectrometry (e.g. for previously unreported dates; see also Brookins and others, 1973). The York least squares method has been used for Rb-Sr isochron construction and initial ratio (R_0) determination. Only the preliminary age data are given in Table 1; the complete set of data will be formally published later.

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Table 1: Age Data For Granitic Plutons

Granite	Age (m.y.)	R_0^*	Method**	Reference
Stonington	350, 360	-----	K-Ar B	1
Stonington	341 $\pm$ 21	0.7050 $\pm$ 0.0006	Rb-Sr WR	2
Oak Point	354	-----	K-Ar B	1
Oak Point	343 $\pm$ 15	-----	K-Ar B	3
Oak Point	357 $\pm$ 1	0.7045 $\pm$ 0.0001	Rb-Sr WR	2
Vinalhaven	361 $\pm$ 7	0.705 $\pm$ 0.001	Rb-Sr Wr	4
Sedgwick	413 $\pm$ 15	-----	K-Ar B	3
Sedgwick	395 $\pm$ 15	0.706 $\pm$ 0.002	Rb-Sr WR	5
East Blue Hill	387	-----	K-Ar B	1
East Blue Hill	391	(0.710)	Rb-Sr B	1
East Blue Hill	392 $\pm$ 12	0.707 $\pm$ 0.002	Rb-Sr WR	5
South Penobscot	360 $\pm$ 15	-----	K-Ar B	3
South Penobscot	393 $\pm$ 15	(0.706)	Rb-Sr B	6
South Penobscot	403 $\pm$ 15	0.706 $\pm$ 0.002	Rb-Sr WR	6
Wallamatogus	379	-----	K-Ar M	1
Wallamatogus	413	(0.710)	Rb-Sr M	1
Wallamatogus	330	-----	K-Ar B	1
Wallamatogus	349	(0.710)	Rb-Sr B	1
Wallamatogus	(375 $\pm$ 20)	(0.715 $\pm$ 0.005)	Rb-Sr WR	6
Mt. Waldo	325	-----	K-Ar B	7
Mt. Waldo	390 $\pm$ 10	0.705 $\pm$ 0.002	Rb-Sr WR	6
Lucerne	385	-----	K-Ar B	1
Lucerne	402 $\pm$ 13	0.714 $\pm$ 0.002	Rb-Sr WR	6
Cadillac Mtn.	397	-----	K-Ar B	1
Cadillac Mtn.	398	(0.710)	Rb-Sr B	1
Cadillac Mtn.	369 $\pm$ 35	0.7071 $\pm$ 0.0015	Rb-Sr WR	8
Somesville	389	-----	K-Ar B	1
Somesville	419 $\pm$ 16	0.7060 $\pm$ 0.0026	Rb-Sr WR	8

* R_0 = initial $^{87}\text{Sr}/^{86}\text{Sr}$; () indicate assumed values.

** B = biotite, M = muscovite, WR = whole rock